

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

1647

Applicant: Vassilios Papadopoulos et al.

Title: CHOLESTEROL RECOGNITION SEQUENCE

Docket No.: 1941.017US1

Filed: August 31, 2001

Examiner: Ian Dang



Serial No.: 09/623,922

Due Date: N/A

Group Art Unit: 1647

MS Amendment

Commissioner for Patents

P.O. Box 1450

Alexandria, VA 22313-1450


We are transmitting herewith the following attached items (as indicated with an "X"):

- ☒ Return postcard.
- ☒ Communication Concerning Related Applications (1 pg.).
- ☒ Information Disclosure Statement (2 pgs.), Form 1449 (3 pgs.), and copies of 43 cited documents.

If not provided for in a separate paper filed herewith, Please consider this a PETITION FOR EXTENSION OF TIME for sufficient number of months to enter these papers and please charge any additional fees or credit overpayment to Deposit Account No. 19-0743.

SCHWEGMAN, LUNDBERG, WOESSNER & KLUTH, P.A.

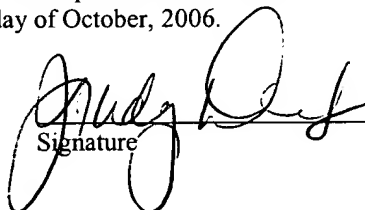
Customer Number 21186

By: 
Atty: Janet E. Emberson
Reg. No. 39,665

CERTIFICATE UNDER 37 CFR 1.8: The undersigned hereby certifies that this correspondence is being deposited with the United States Postal Service with sufficient postage as first class mail, in an envelope addressed to: MS Amendment, Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450, on this 26 day of October, 2006.

JUDY DENT

Name


Signature

SCHWEGMAN, LUNDBERG, WOESSNER & KLUTH, P.A.

(GENERAL)



S/N 09/623,922

PATENT

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

Applicant: Vassilios Papadopoulos et al. Examiner: Ian Dang
Serial No.: 09/623,922 Group Art Unit: 1647
Filed: August 31, 2001 Docket: 1941.017US1
Title: CHOLESTEROL RECOGNITION SEQUENCE

COMMUNICATION CONCERNING RELATED APPLICATION(S)

MS Amendment

Commissioner for Patents
P.O. Box 1450
Alexandria, VA 22313-1450

Applicants would like to bring to the Examiner's attention the following related application(s) in the above-identified patent application:

<u>Serial/Patent No.</u>	<u>Filing Date/Issue Date</u>	<u>Attorney Docket</u>	<u>Title</u>
09/762594 7,056,694	June 22, 2001	1941.015US1	DNA ENCODING PERIPHERAL-TYPE BENZODIAZEPINE RECEPTOR ASSOCIATED PROTEIN 7, AND APPLICATIONS OR METHODS OF USE
11/331940	January 13, 2006	1941.015US2	PERIPHERAL-TYPE BENZODIAZEPINE RECEPTOR ASSOCIATED PROTEINS, CLONING, EXPRESSION AND METHODS OF USE

Continuations and divisionals may be later filed on the cases listed above, or cited to the Examiner in any previous Communication Concerning Related Applications. Applicants request that the Examiner review all continuations and divisionals of the above-listed or previously-cited patent applications before allowing the claims of the present patent application.

Respectfully submitted,

VASSILIOS PAPADOPOULOS ET AL.

By Applicants' Representatives,

SCHWEGMAN, LUNDBERG, WOESSNER & KLUTH, P.A.
P.O. Box 2938
Minneapolis, MN 55402
(612) 373-6959

Date

October 24, 2006

By

Janet E. Embresson
Reg. No. 39,665

CERTIFICATE UNDER 37 CFR 1.8: The undersigned hereby certifies that this correspondence is being deposited with the United States Postal Service with sufficient postage as first class mail, in an envelope addressed to: MS Amendment, Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450, on this 20th day of October, 2006.

JUDY DENT
Name

Judy Dent
Signature



09/623,922

PATENT

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

Applicant:	Vassilios Papadopoulos et al.	Examiner:	Ian Dang
Serial No.:	09/623,922	Group Art Unit:	1647
Filed:	August 31, 2001	Docket:	1941.017US1
Title:	CHOLESTEROL RECOGNITION SEQUENCE		

INFORMATION DISCLOSURE STATEMENT

MS Amendment
Commissioner for Patents
P.O. Box 1450
Alexandria, VA 22313-1450

In compliance with the duty imposed by 37 C.F.R. § 1.56, and in accordance with 37 C.F.R. §§ 1.97 *et. seq.*, the enclosed materials are brought to the attention of the Examiner for consideration in connection with the above-identified patent application. Applicants respectfully request that this Information Disclosure Statement be entered and the documents listed on the attached Form 1449 be considered by the Examiner and made of record. Pursuant to the provisions of MPEP 609, Applicants request that a copy of the 1449 form, initialed as being considered by the Examiner, be returned to the Applicants with the next official communication.

Pursuant to 37 C.F.R. §1.97(b), it is believed that no fee or statement is required with the Information Disclosure Statement. However, if an Office Action on the merits has been mailed, the Commissioner is hereby authorized to charge the required fees to Deposit Account No. 19-0743 in order to have this Information Disclosure Statement considered.

Pursuant to 37 C.F.R. 1.98(a)(2), Applicant believes that copies of cited U.S. Patents and Published Applications, and Non-Published Applications identifiable by USPTO Serial Number, are no longer required to be provided to the Office. Notification of this change to this effect was provided in the United States Patent and Trademark Office OG Notices dated October 12, 2004 and October 19, 2004. Thus, Applicant has not included copies of any US Patents or US Patent Applications identifiable by serial number that may be cited with this submission. Should the Office require copies to be provided, Applicant respectfully requests that notice of such requirement be directed to Applicant's below-signed representative. Applicant acknowledges the requirement to submit copies of foreign patent documents and non-patent literature in accordance with 37 C.F.R. 1.98(a)(2).

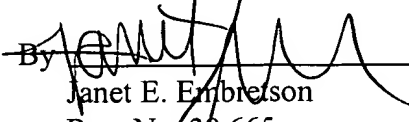
The Examiner is invited to contact the Applicants' Representative at the below-listed telephone number if there are any questions regarding this communication.

Respectfully submitted,

VASSILIOS PAPADOPOULOS ET AL.

By their Representatives,

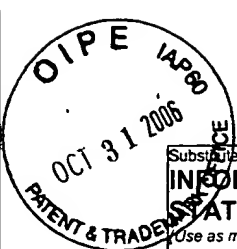
SCHWEGMAN, LUNDBERG, WOESSNER & KLUTH, P.A.
P.O. Box 2938
Minneapolis, MN 55402
(612) 373-6959

Date October 24, 2006 By 
Janet E. Embretson
Reg. No. 39,665

CERTIFICATE UNDER 37 CFR 1.8: The undersigned hereby certifies that this correspondence is being deposited with the United States Postal Service with sufficient postage as first class mail in an envelope addressed to: MS Amendment, Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450 on this 26th day of October 2006.

JUDY DENT
Name


Signature



Under the Paperwork Reduction Act of 1995, no persons are required to respond to a collection of information unless it contains a valid OMB control number.

Substitute for form 1449A/PTO

INFORMATION DISCLOSURE STATEMENT BY APPLICANT

(Use as many sheets as necessary)

Complete if Known

Application Number	09/623,922
Filing Date	August 31, 2001
First Named Inventor	Papadopoulos, Vassilios
Group Art Unit	1647
Examiner Name	Dang, Ian

Sheet 1 of 3

Attorney Docket No: 1941.017US1

US PATENT DOCUMENTS

Examiner Initial *	USP Document Number	Publication Date	Name of Patentee or Applicant of cited Document	Filing Date If Appropriate
	US-20030157095A1	08/21/2003	Papadopoulos, V.	03/25/1998
	US-20060106202A1	05/18/2006	Papadopoulos, V., et al.	01/13/2006
	US-5,350,836	09/27/1994	Kopchick, J. J., et al.	05/04/1992
	US-5,948,676	09/07/1999	Chang, Y., et al.	10/10/1996

FOREIGN PATENT DOCUMENTS

Examiner Initials*	Foreign Document No	Publication Date	Name of Patentee or Applicant of cited Document	T ²
	WO-0001821A2	01/13/2000	Lal, P., et al.	
	WO-0009549A2	02/24/2000	Papadopoulos, V.	
	WO-9503325	02/02/1995	Lehrer, Robert L., et al.	
	WO-9718826	05/29/1997	Chang, Conway C., et al.	
	WO-9946389	09/16/1999	Goldenberg, David M., et al.	
	WO-9946575	09/16/1999	Papadopoulos, V.	
	WO-9949316A2	09/30/1999	Papadopoulos, V., et al.	

OTHER DOCUMENTS -- NON PATENT LITERATURE DOCUMENTS

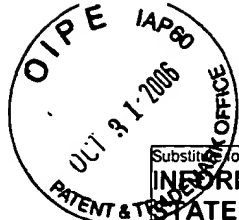
Examiner Initials*	Cite No ¹	Include name of the author (in CAPITAL LETTERS), title of the article (when appropriate), title of the item (book, magazine, journal, serial, symposium, catalog, etc.), date, page(s), volume-issue number(s), publisher, city and/or country where published.	T ²
		"Extended European Search Report and communication - Application No. 06076592.2 - 1223, (September 29, 2006), 9 pgs	
		"International Search Report in PCT/US 99/05853", 5 Pages	
		BOYLE, T P., "Structure of the murine gene encoding apolipoprotein A-I.", <u>Gene</u> , 117(2), (August 1992), 243-247	
		COLLES, S. M., et al., "Cholesterol interaction with recombinant human sterol carrier protein-2", <u>Lipids</u> , 30(9), (1995), 795-803	
		EVER, L, et al., "Two alternatively spliced Meig1 messenger RNA species are differentially expressed in the somatic and in the germ-cell compartments of the testis", <u>Cell Growth Differ.</u> , 10(1), (January 1999), 19-26	
		FARGES, R, "Site-directed mutagenesis of the peripheral benzodiazepine receptor: identification of amino acids implicated in the binding site of Ro5-4864", <u>Mol. Pharmacol.</u> , 46(6), (December 1994), 1160-7	
		GALIEGUE, S., et al., "Cloning and Characterization of PRAX-1 - A New Protein that Specifically Interacts with the Peripheral Benzodiazepine Receptor", <u>The Journal of Biological Chemistry</u> , 274(5), (January 1999), 2938-2952	
		GARNIER, et al., "In vitro reconstitution of a functional peripheral-type benzodiazepine receptor from mouse Leydig tumor cells", <u>Molecular Pharmacology</u> , 45, (1994), 201-211	
		GLENNEY, J R., "The sequence of human caveolin reveals identity with VIP21, a component of transport vesicles.", <u>FEBS Letters</u> , 314(1), (December 1992), 45-48	

EXAMINER

DATE CONSIDERED

Substitute Disclosure Statement Form (PTO-1449)

* EXAMINER: Initial if reference considered, whether or not citation is in conformance with MPEP 609. Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant. ¹ Applicant's unique citation designation number (optional) ² Applicant is to place a check mark here if English language Translation is attached



Substitute for form 1449A/PTO
**INFORMATION DISCLOSURE
STATEMENT BY APPLICANT**
(Use as many sheets as necessary)

Complete if Known

Application Number	09/623,922
Filing Date	August 31, 2001
First Named Inventor	Papadopoulos, Vassilios
Group Art Unit	1647
Examiner Name	Dang, Ian

Sheet 2 of 3

Attorney Docket No: 1941.017US1

OTHER DOCUMENTS -- NON PATENT LITERATURE DOCUMENTS

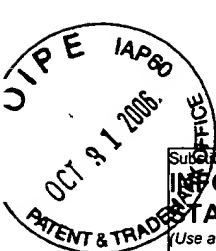
Examiner Initials*	Cite No. ¹	Include name of the author (in CAPITAL LETTERS), title of the article (when appropriate), title of the item (book, magazine, journal, serial, symposium, catalog, etc.), date, page(s), volume-issue number(s), publisher, city and/or country where published.	T ²
		HARDER, T, et al., "Specific release of membrane-bound annexin II and cortical cytoskeletal elements by sequestration of membrane cholesterol", <u>Mol Biol Cell.</u> , 8(3), (1997),533-45	
		HARDWICK, M., et al., "Abstract #1569 The Peripheral-type Benzodiazepine Receptor in Human Breast Cancer", <u>Proceedings of the American Association for Cancer Research</u> , 38, (April 1997),233	
		HARDWICK, M., "Peripheral-Type Benzodiazepine Receptor (PBR) in Human Breast Cancer: Correlation of Breast Cancer Cell Aggressive Phenotype with PBR Expression, Nuclear Localization, and PBR-mediated Cell Proliferation and Nuclear Transport of Cholesterol", <u>Cancer Research</u> , 59(4), (1999),831-842	
		HORINOUCI, S, et al., "Cloning, nucleotide sequence, and transcriptional analysis of the NAD(P)-dependent cholesterol dehydrogenase gene from a Nocardia sp. and its hyperexpression in Streptomyces spp.", <u>Appl Environ Microbiol.</u> , 57(5), (1991),1386-1393	
		ISHIZAKI, T, et al., "Nucleotide sequence of the gene for cholesterol oxidase from a Streptomyces sp", <u>Journal of Bacteriology</u> , (1991),596-601	
		JOSEPH-LIAUZUN, EVELYNE, et al., "Topological analysis of the peripheral benzodiazepine receptor in yeast mitochondrial membranes supports a five- transmembrane structure", <u>J Biol Chem.</u> , 273(4), (January1998),2146-52	
		KAI, M, et al., "Synchronous circadian rhythms of mRNA levels and activities of cholesterol 7 alpha hydroxylase in the rabbit and rat", <u>Journal of Lipid Research</u> , 36, (1995),367-374	
		KOZIKOWSKI, A. P., et al., "Synthesis and Biology of a 7-Nitro-2,1,3-benzoxadiazol-4-yl Derivative of 2-Phenylindole-3-acetamide: A Fluorescent Probe for the Peripheral-Type Benzodiazepine Receptor", <u>Journal of Medicinal Chemistry</u> , 40(16), (1997),2435-2439	
		KRUEGER, K. E., "Peripheral-type Benzodiazepine Receptors Mediate Translocation of Cholesterol from Outer to Inner Mitochondrial Membranes in Adrenocortical Cells", <u>The Journal of Biological Chemistry</u> , 265(25), (1990),15015-15022	
		LI, H., et al., "M. musculus peripheral benzodiazepine receptor associated protein", <u>Database EMBL [Online] AC AF022770</u> , (October 1997),1 page	
		LI, H., "Peripheral-type benzodiazepine receptor function in cholesterol transport. Identification of a putative cholesterol recognition/interaction amino acid sequence and consensus pattern", <u>Endocrinology</u> , 139(12), (1999),4991-4997	
		LIU, JUN, et al., "Molecular cloning, chromosomal localization of human peripheral-type benzodiazepine receptor- and protein kinase A regulatory subunit type 1A (PRKAR1A)- associated protein PAP7 and studies in PRKAR1A mutant cells and tissues", <u>The FASEB Journal</u> , express article 10.1096/fj.02-1066fje, (April 2003),27 pgs.	
		MIETTINEN, H. , "Expression of peripheral-type benzodiazepine receptor and diazepam binding inhibitor in human astrocytomas: relationship to cell proliferation", <u>Cancer Research</u> , 55(12), (June 15, 1995),2691-2695	
		MURATA, M., et al., "VIP21/caveolin is a cholesterol-binding protein", <u>Proc Nat Acad Sci</u> , 92(22), (1995),10339-10343	

EXAMINER

DATE CONSIDERED

Substitute Disclosure Statement Form (PTO-1449)

* EXAMINER: Initial if reference considered, whether or not citation is in conformance with MPEP 609. Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant. 1 Applicant's unique citation designation number (optional) 2 Applicant is to place a check mark here if English language Translation is attached



Under the Paperwork Reduction Act of 1995, no persons are required to respond to a collection of information unless it contains a valid OMB control number.

Substitute for form 1449A/PTO

**INFORMATION DISCLOSURE
STATEMENT BY APPLICANT**

(Use as many sheets as necessary)

Complete if Known

Application Number	09/623,922
Filing Date	August 31, 2001
First Named Inventor	Papadopoulos, Vassilios
Group Art Unit	1647
Examiner Name	Dang, Ian

Sheet 3 of 3

Attorney Docket No: 1941.017US1

OTHER DOCUMENTS -- NON PATENT LITERATURE DOCUMENTS

Examiner Initials*	Cite No. ¹	Include name of the author (in CAPITAL LETTERS), title of the article (when appropriate), title of the item (book, magazine, journal, serial, symposium, catalog, etc.), date, page(s), volume-issue number(s), publisher, city and/or country where published.	T ²
		NILSSON, J, et al., "cDNA cloning of human-milk bile-salt-stimulated lipase and evidence for its identity to pancreatic carboxylic ester hydrolase", <u>European Journal of Biochemistry</u> , 192(2), (1990),543-550	
		PAPADOPOULOS, V., et al., "CHOLESTEROL RECOGNITION SEQUENCE", <u>US Patent Application Ser. No. 09/623,922</u> , filed September 11, 2000	
		PAPADOPOULOS, V., et al., "PERIPHERAL-TYPE BENZODIAZEPINE RECEPTOR: A TOOL FOR DETECTION, DIAGNOSIS, PROGNOSIS, AND TREATMENT OF CANCER", <u>US Patent Application Ser. No. 09/646,932</u> , filed September 25, 2000	
		PAPADOPOULOS, V, "Peripheral-type benzodiazepine/diazepam binding inhibitor receptor: biological role in steroidogenic cell function", <u>Endocrine Review</u> , 14(2), (1993),222-240	
		PAPADOPOULOS, V, "Structure and function of the peripheral-type benzodiazepine receptor in steroidogenic cells", <u>Proceedings of the Society for Experimental Biology & Medicine</u> , 217(2), (February 1998),130-142	
		PAPADOPOULOS, V., et al., "Targeted Disruption of the Peripheral-Type Benzodiazepine Receptor Gene Inhibits Steroidogenesis in the R2C Leydig Tumor Cell Line", <u>The Journal of Biological Chemistry</u> , 272(51), American Society of Biological Chemists, Baltimore, (December 1997),32129-22135	
		PAPADOPOULOS, VASSILIOS, et al., "The Peripheral-type Benzodiazepine Receptor Is Functionally Linked to Leydig Cell Steroidogenesis", <u>Journal of Biological Chemistry</u> 265(7), (March 1990),3772-3779	
		PAPE, M E., et al., "Tissue specific changes in acyl-CoA: cholesterol acyltransferase (ACAT) mRNA levels in rabbits", <u>Journal of Lipid Research</u> , 36(4), (1995),823-838	
		PIKULEVA, IRINA A., "Active-site topology of bovine cholesterol side-chain cleavage cytochrome P450 (P450scc) and evidence for interaction of tyrosine 94 with the side chain of cholesterol", <u>Archives of Biochemistry and Biophysics</u> , 322(1), (September 1995),189-97	
		PORTER, J A., et al., "Cholesterol modification of hedgehog signaling proteins in animal development", <u>Science</u> , 274(5285), (1996),255-9	
		STOCCO, D M., et al., "Regulation of the acute production of steroids in steroidogenic cells", <u>Endocr Rev.</u> , 17(3), (1996),221-44	
		SU, P, "A cDNA encoding a rat mitochondrial cytochrome P450 catalyzing both the 26-hydroxylation of vitamin D3: gonadotropic regulation of the cognate mRNA in ovaries", <u>DNA and Cell Biology</u> 9(9), (November 1990),657-67	
		TAKETANI, S, et al., "Induction of peripheral-type benzodiazepine receptors during differentiation of mouse erythroleukemia cells. A possible involvement of these receptors in heme biosynthesis", <u>Journal of Biological Chemistry</u> , (1994),7527-7531	

EXAMINER

DATE CONSIDERED

Substitute Disclosure Statement Form (PTO-1449)

* EXAMINER: Initial if reference considered, whether or not citation is in conformance with MPEP 809. Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant. 1 Applicant's unique citation designation number (optional) 2 Applicant is to place a check mark here if English language Translation is attached